What is Claimed is:

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- a mold comprising a body having a first surface and an opposite second surface,
- 3 imprinting patterns being formed in areas of the second surface;
- 4 an electrostatic plate capacitor comprising first and second metal film electrodes
- respectively embedded in the first and second surfaces of the mold body and
- spaced a distance from each other and a metal lead embedded in the mold body
- 7 and connecting the first and second metal film electrodes;
- 8 a detection device detecting a capacitance of the electrostatic capacitor and
- 9 comprising means for converting the capacitance into an amount of deformation
- of the mold body; and
- an external monitoring device receiving a signal representing the amount of
- deformation from the detection device and selectively recording and displaying
- the amount of deformation and comprising means for comparing the amount of
- 14 deformation with a reference to determine if the amount of deformation exceeds
- the reference and selectively issuing a warning and shutting down the system.
- 1 2. The system as claimed in Claim 1, wherein the imprinting patterns of the mold body
- 2 selectively comprise micro-scale patterns and nano-scale patterns.
- 1 3. The system as claimed in Claim 1, wherein the metal film electrodes are formed on
- 2 the mold body without overlapping the imprinting patterns.
- 1 4. The system as claimed in Claim 1, wherein the electrostatic plate capacitor and the
- detection device is coupled to the external monitoring device by a cable.

- 5. The system as claimed in Claim 1, wherein the electrostatic plate capacitor and the detection device is coupled to the external monitoring device in a wireless manner.
- 1 6. The system as claimed in Claim 5, wherein the wireless coupling comprises a
- 2 wireless transmitter that receives and encodes the detection result from the detection
- device and transmits a wireless signal and a wireless receiver that receives the
- 4 wireless signal and a decoder that decodes the received wireless signal and applies a
- 5 corresponding signal to the external monitoring device.
- 7. The system as claimed in Claim 1, wherein the detection device comprises a
- 2 detection circuit for detecting the capacitance of the electrostatic plate capacitor and
- 3 issues a detection signal, a modulation circuit for modulating the detection signal and
- 4 issuing a modulated signal, an analog-to-digital converter that receives and converts
- 5 the modulated signal into a digital signal, and a signal processing circuit that process
- and converts the digital signal into the amount of deformation of the mold body.
- 8. The system as claimed in Claim 7, wherein the detection circuit, the modulation
- 2 circuit, the analog-to-digital converter and the signal processing circuit are coupled
- 3 by physical electrical connections.
- 9. The system as claimed in Claim 7, wherein the detection circuit, the modulation
- 2 circuit, the analog-to-digital converter and the signal processing circuit are coupled
- 3 by wireless connections.
- 1 10. The system as claimed in Claim 9, wherein the wireless coupling comprises a
- 2 wireless transmitter that receives and encodes a first signal and transmits a wireless

3 s	ignal and	a wireless	receiver that	receives the	wireless	signal	and a	a decoder	that
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- 4 decodes the received wireless signal and issues a corresponding second signal.
- 1 11.A method for monitoring amount of deformation of a nano-imprint mold comprising
- 2 the following steps:
- 3 (A) detecting and recording a reference capacitance of an electrostatic plate capacitor
- 4 embedded in the mold at a first time point before the start of an imprinting process
- 5 carried out with the nano-imprint mold;
- 6 (B) detecting a capacitance of the electrostatic plate capacitor at a second time point
- 7 after the imprinting process is being carried out;
- 8 (C) processing the capacitance detected at the second time point to obtain an amount
- 9 of deformation of the mold;
- 10 (D) feeding the amount of deformation to an external monitoring device and recording
- 11 the amount of the deformation;
- 12 (E) using the external monitoring device to display and selectively determine if the
- amount of deformation exceeds a limit that is determined on the basis of the
- 14 reference capacitance; and
- 15 (F) if the amount of deformation exceeds the limit, then selectively issuing warning
- and selectively stopping the imprinting process otherwise repeating steps (2)-(5).
- 1 12. The method as claimed in Claim 11, wherein in step (2), the capacitance of the
- 2 electrostatic plate capacitor is detected by a detection circuit.

- 1 13. The method as claimed in Claim 11, wherein in step (3), the capacitance is detected
- 2 by a circuit and represented as an electrical signal and wherein step (3) further
- 3 comprises the following sub-steps:
- 4 (A) modulating the signal representing the capacitance to issue a modulated signal;
- 5 (B) converting the modulated signal into a digital signal; and
- 6 (C) comparing the digital signal with the reference capacitance and calculating the
- 7 amount of the deformation.
- 1 14. The method as claimed in Claim 11, wherein in step (5), the amount of deformation
- 2 is directly displayed on a display device of the external monitoring device.